

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A cooling Cooling system (10, 110) for the cooling of heat producing devices (44, 46, 48) in an aircraft, comprising: [[with]]

a central cold producing device including at least two cooling machines working independently of each other (12),

at least one cold consumer, (44, 46, 48) and

a cold conveyance system (14) which connects the cold producing device (12) and the at least one cold consumer ~~consumers~~ (44, 46, 48), whereby the cold conveyance system including (14) ~~has at least two~~ [[one]] cooling circuits completely independent of each other, the at least two cooling circuits supplying a circuit which supplies cooled cold carrier medium that has been cooled by [[from]] the cold producing device (12) to the at least one cold consumer (44, 46, 48) and returning the cold carrier medium from the at least one cold consumer brings this back to the cold producing device (12), and

whereby the at least two cooling machines are coupled in parallel to the cold conveyance system such that each of the at least two cooling circuits are thermally coupled to the at least two cooling machines one cold consumer (44, 46, 48) is supplied with cold produced in the cold producing device (12) by means of the cold carrier medium circulating in the cooling circuit.

2. (Canceled).

3. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1,
 ~~wherein characterised in that the number of cooling machines (18, 20) of the cold~~
 ~~producing device is configured to cover a (12) is chosen in such a way, that the cold requirement~~
 ~~for the aircraft during ground operation is covered.~~

4. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1,
 ~~wherein characterised in that the at least two [[one]] cooling machines use machine (18,~~
 ~~20) uses air outside of the pressure cabin of the aircraft as a heat sink in order to expel heat, and~~
 ~~the warm extracted air is expelled outside of the pressure cabin.~~

5. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1,
 ~~wherein one of the at least two characterised in that a number of cooling circuits is (125,~~
 ~~127), which are essentially independent of one another, are provided in each of a front half of the~~
 ~~aircraft and a rear half of the aircraft.~~

6. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1 [[5]],
 ~~wherein one of the at least two characterised in that a cooling circuits circuit (125, 127) is~~
 ~~provided on each side of the aircraft in relation to a longitudinal axis of the aircraft and/or one~~
 ~~cooling circuit in a front half and one in the rear half of the aircraft.~~

7. (Currently Amended) The cooling ~~Cooling~~ system (140) in accordance with claim 6, ~~wherein characterised in that~~ cold consumers (166, 168, 170, 172, 174, 176) positioned in the ~~center centre~~ of the aircraft are supplied with the cold carrier medium from the at least two cooling circuits (125, 127).

8. (Currently Amended) The cooling ~~Cooling~~ system (140) in accordance with claim 1 [[5]], ~~wherein characterised in that~~ each cooling circuit includes (125, 127) has at least one cold carrier pump (132, 134, 156, 158) for the circulation of the cold carrier medium.

9. (Currently Amended) The cooling ~~Cooling~~ system (140) in accordance with claim 8, ~~wherein characterised in that~~ at least two cold carrier ~~earier~~ pumps (132, 134, 156, 158), ~~which~~ are assigned to each ~~one and the same~~ cooling circuit and (125, 127), are supplied with electric energy independently of one another.

10. (Currently Amended) The cooling ~~Cooling~~ system (140) in accordance with claim 1 [[5]], ~~wherein characterised in that~~ at least one storage unit (140, 160) for [[the]] intermediary storage of the cold carrier medium is assigned to each cooling circuit (125, 127).

11. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1
[[5]],

wherein each of the characterised-in-that at least two cooling circuits (125, 127) are
thermally coupled to a cold consumer by means of the cold producing device and/or by means of
a heat exchanger.

12. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1,
wherein the characterised-in-that at least one cold consumer (44, 46, 48) has a secondary
cold conveyance system in which cold is transferred from the cold carrier medium by means of a
secondary cold carrier, preferably air.

13. (Currently Amended) The cooling Cooling system (10) in accordance with claim 1,
further comprising: characterised-in-that
a central control unit configured to control the cold output of each of the at least two
cooling circuits ~~is provided which,~~ dependent upon at least one of the specified parameters for a
[[the]] current cold requirement, ~~the cold output is controlled in each of the cooling circuits.~~

14. (Currently Amended) The cooling Cooling system (10) in accordance with claim 13,
wherein characterised-in-that the specified parameters which specify the current cold
requirement reflect the temperature of the cold carrier medium measured in [[at]] at least one
point in the cooling circuits circuit, preferably at least the output temperature of the cold carrier
medium from the cold carrier pump; and/or information about the current cold requirement of at
least one cold consumer (44, 46, 48) and/or a [[the]] pressure of the cold carrier medium in the
cooling circuits circuit in question.

15. (Currently Amended) ~~The cooling~~ Cooling system (10) in accordance with claim 1 ~~[[2]],~~
~~wherein~~ characterised in that the cold output is controlled so as to adapt to a ~~[[the]]~~
current cold requirement in the aircraft by means of turning individual cooling machines (18, 20)
of the cold producing device (12) on and off.

16. (Currently Amended) ~~The cooling~~ Cooling system (10) in accordance with claim 1 ~~[[2]],~~
~~wherein~~ characterised in that a check valve and a bypass line which bypasses the cooling
machine ~~are~~ ~~[[is]]~~ assigned to each cooling machine.

17. (Currently Amended) ~~The cooling~~ Cooling system (10) in accordance with claim 13,
~~wherein~~ characterised in that the cold output of ~~the~~ at least two ~~[[one]]~~ cooling ~~machines~~
~~machine~~ (18, 20) is ~~continuously~~ controllable, ~~preferably continuously,~~ by means of the ~~central~~
control unit.

18. (Currently Amended) ~~The cooling~~ Cooling system (10) in accordance with claim 13,
~~wherein~~ characterised in that the ~~central~~ control unit records ~~an~~ ~~[[the]]~~ output temperature
of the cold carrier medium leaving the ~~at least two~~ cooling ~~machines~~ machine (18, 20) and
controls the ~~at least two~~ cooling ~~machines~~ machine (18, 20) in accordance with the output
temperature measured and recorded.

19. (Currently Amended) The cooling Cooling system (10) in accordance with claim 18, wherein characterised in that the cold output of ~~the~~ at least two ~~[[one]]~~ cooling machines machine (18, 20) can be changed by means of a bypass valve and/or by varying a speed the revolutions per minute of a compressor used in the at least two cooling machines machine (18, 20).
20. (Currently Amended) The cooling Cooling system (10) in accordance with claim 13, wherein characterised in that the central control unit for the control of the cold output of the cooling system (10) changes a ~~[[the]]~~ quantity of the cold carrier medium supplied in each of the cooling circuits circuit in question.
21. (Currently Amended) The cooling Cooling system (10) in accordance with claim 20, wherein characterised in that the central control unit for the control of the cold output changes a speed the revolutions per minute of at least one cold carrier pump (32, 34) in the at least two cooling circuits circuit in question.
22. (Currently Amended) The cooling Cooling system (110) in accordance with claim 1 ~~[[5]]~~, wherein characterised in that each cooling circuit (125, 127) is supplied with electric energy, independently of at least one other cooling circuit (125, 127).
23. (Currently Amended) An aircraft Aircraft with a cooling system in accordance with claim 1.